

DETAILED ACTION

Applicant's arguments filed 9/22/11 have been fully considered but they are not persuasive. Previous rejections and other issues not addressed below are withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,9-12,16-18,20,21,25,26,28,31,33,38,42,43,45,47-52,54,57,58,60,63-69,71,76-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clough (USPN 4496388; 1/29/85) and Himel et al. (US 4286020; 8/25/81). Clough teaches a fungicidal composition comprising metal complex of the compound of formula I (abstract, column 6 lines 14-18). Clough teaches that the composition can comprise additional compounds such as auxins including indoleacetic acid, indole butyric acid, and naphthyacetic acid (column 11 lines 7-39), anionic surfactants including calcium lignosulphonate (column 10 lines 1-18) as well as ingredients such as calcium carbonate (column 9 lines 3-19) Clough teaches that the composition can exist in many forms including aqueous dispersions (column 9 lines 25-68) and as a microcapsule (column 9 lines 45-46). Clough teaches a method of controlling fungi such as phytophthora and rhizoctonia (column 6 lines 39-50) growth on plants such as coffee beans, soya beans and potatoes, i.e. monocots and dicots (column 6 lines 19-36, lines 55-66, column 7 lines 41-64), by applying the composition onto plants and/or their seeds. Clough does not exemplify

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an invention of controlling fungi by applying a composition comprising metal complex of the compound of formula I, indoleacetic acid, indole butyric acid and calcium lignosulphonate onto plants and/or their seeds. Clough does not teach disclose the microencapsulation involves a resin. However, it would have been obvious to arrive at such an invention since Clough suggests the combination of ingredients to be applied to plants and/or their seeds to control fungi growth. Clough does not teach the invention of treating onion plants and/or their seeds with the auxin and metal mixture. It would have been obvious to do this since an onion plant is a monocot plant. With respect to encapsulation, it is well known to encapsulate compounds in order to control their release. Clough teaches the encapsulation of fungicides (column 9 lines 45-46). Note, Himel et al. teach the encapsulation of actives using polymers to control their release (abstract, column 2 lines 44-50). It would have been obvious to use the polymer taught by Himel et al. in the microencapsulation taught by Clough to control the release of the actives, insecticides and fungicides.

Response to Applicant's argument

Applicants argue that every embodiment of Clough discloses the use of fungicidal triazole and imidazole compound to apply to plants. Clough does not teach or suggest the use of auxins in the absence of triazoles and imidazoles. The Examiner argues that Clough makes instant claims reciting consisting essentially of language obvious since auxins, like triazoles and imidazoles, possess fungicidal activity. The instant claims do not exclude the triazole and imidazole fungicides taught in Clough since the exclusion of said fungicides would not change the activity the overall fungicidal activity of a composition containing auxin. Thus, Auxins like imidazoles and triazoles show fungicidal activity. Therefore, whether the imidazoles and

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triazoles are present or absent, the basic fungicidal activity of the instant composition will remain and for this reason the consisting essentially of language would not exclude imidazoles and triazoles. The imidazoles and triazoles would only be excluded if their activity was differ from that of the auxin. Since auxins, imidazoles and triazoles all possess fungicidal activity, the consisting essentially of language recited in the instant claims would not eliminate the fungicidal triazoles and fungicidal imidazoles taught by Clough from the instant claims. The Examiner maintains that it would have been expected that any application rate of auxin and any metal concentration range would have been effective absent a showing of unexpected results for the claimed auxin application rates and metal concentration ranges.

Applicants point out that claims 1,25,28,33,51,54,60 and 68 are amended to recite: A method of ... principal fungi-inhibitor consisting of plant hormones including auxins including at least indole-3-acetic acid and indole-3-butyric acid. Clough does not teach or suggest the use of auxins to protect against fungi and insects and their larvae, in the absence of his hazardous fungicidal triazole and imidazole compounds. The Examiner would like to point out that it appears the original specification does not define or classify indole acetic acid and indole 3-butyric acid as principal fungi-inhibitors. The Examiner argues that although Clough does not teach that auxins (such as indole acetic acid and indole butyric acid) are the principal inhibitors as claimed, Clough does teach that auxins such as indole acetic acid and indole-3-butyric acid can be applied to plants. Thus, Cloughs' teaching makes instant inhibitors being auxins obvious. Furthermore, the Examiner argues that the instant claims employ comprising language which does not exclude the inclusion of the hazardous fungicidal triazole and imidazole taught in Clough.

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Applicants argue that the Examples in the instant specification all use the two auxins namely indole-3-acetic acid and indole-3-butyric acid as plant the plant growth regulator. On the other hand, Clough does not suggest the use of two auxins and provides no motivation of the use of auxins. In fact, Applicants argue that Clough only teaches that auxin may be optionally used as a plant growth regulator - not to control insects or fungi. In addition, Applicants point out that none of the seven examples in Clough employ auxin. Applicants point out that their claimed invention using the auxins provides unexpected results. The Examiner argues that Clough teaches that indole acetic acid and indole butyric acid are individually used as plant growth regulators. Hence, it would have been obvious to combine two actives with the same utility. The Examiner argue that a chemical controlling insect and fungi infestation in plants can be considered a plant growth regulator. An ingredient (indole acetic acid or indole butyric acid) optionally taught in Clough lends to the possibility of employing that ingredient. Note, Clough suggests the use of indole acetic acid and indole butyric acid which lends to the use of indole acetic acid and/or indole butyric acid being obvious. Note, Clough does not have to exemplify a claimed invention to make the invention obvious. While it is true that Applicants' specification discloses unexpected results. the Examiner argues that the examples are commensurate in scope with the claims. With respect to auxin application rate ranges and metal concentration ranges recited in dependent claims, Clough is silent to auxin application rate ranges as well as metal concentration ranges. For this reason, it would have been expected that any application rate of auxin and any metal concentration range would have been effective when combined with triazolylalkanetriols absent a showing of unexpected results for the claimed auxin application rates and metal concentration ranges.

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Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claims 1,9-12,16-18,20,21,25,26,28,31,33,38,42,43,45,47-52,54,57,58,60,63-69,71,76-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clough (USPN 4496388; 1/29/85), Fashui et al (95102367.5; 3/22/95), Xianguo et al. (02117261.7; 1/22/03) or Winston et al (WO 9400986; 1/20/94) and Himel et al. (US 4286020; 8/25/81) .

Clough teaches a fungicidal composition comprising metal complex of the compound of formula I (abstract, column 6 lines 14-18). Clough teaches that the composition can comprise additional compounds such as auxins including indoleacetic acid, indole butyric acid, and naphthiacetic acid (column 11 lines 7-39), anionic surfactants including calcium lignosulphonate (column 10 lines 1-18) as well as ingredients such as calcium carbonate (column 9 lines 3-19). Clough teaches that the composition can exist in many forms including aqueous dispersions (column 9 lines 25-68) and as a microcapsule (column 9 lines 45-46). Clough teaches a method of controlling fungi such as phytophthora and rhizoctonia (column 6 lines 39-50) growth on plants such as coffee beans, soya beans and potatoes, i.e. monocots and dicots (column 6 lines 19-36, lines 55-66, column 7 lines 41-64), by applying the composition onto plants and/or their seeds. Clough does not exemplify an invention of controlling fungi by applying a composition comprising metal complex of the compound of formula I, indoleacetic acid, indole butyric acid and calcium lignosulphonate onto plants and/or their seeds. Clough does not teach disclose the microencapsulation involves a resin. However, it would have been obvious to arrive at such an invention since Clough suggests the combination of ingredients to be applied to plants and/or their seeds to control fungi growth. Clough does not teach the invention of treating onion plants

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and/or their seeds with the auxin and metal mixture. It would have been obvious to do this since an onion plant is a monocot plant.

Fashui et al. teach a composite containing of a calcium compound and indolebutyric acid. Fashui et al. teach a method of applying the composite as a seed dressing for wheat and corn crop (abstract).

Xianguo et al. teach a composition containing indolebutyric acid. Xianguo et al. teach calcium dodecylbenzene sulfonate (page 6 of the English translation) can be added to the composition. Xianguo et al. teach a method of applying the composition to crop seed (abstract, claims 1 and 6).

Winston et al. teach a composition containing indolebutyric acid (page 7 lines 16-21). Winston et al. teach calcium carbonate (page 8 lines 21-28). Winston et al. teach a method of applying the composition to crop seed or roots (abstract, claims 1 and 6).

None of the cited references exemplify an invention specifically comprising indole acetic acid, indolebutyric acid and a metal compound such as a calcium compound, the instant calcium concentration, the application rate of auxin or the control of insects or fungi. None of the references teach the encapsulation of agricultural actives. Himel et al. teach the encapsulation of agricultural actives using polymers to control their release (abstract, column 2 lines 44-50). It would have been obvious to one having ordinary skill in the art to arrive at an invention comprising indole acetic acid, indolebutyric acid and a calcium compound. One would have been motivated to do this since the references suggest the combination. It is obvious that the combination would have been effective at controlling insects and fungi since both the prior art and instant claims disclose the same active step, i.e. treating plant seeds or roots with a

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formulation comprising indolebutyric acid and the calcium compound. With respect to auxin application rate ranges and metal concentration ranges recited in dependent claims, the references do not disclose the instant auxin application rate ranges as well as metal concentration ranges. For this reason, it would have been expected that any application rate of auxin and any metal concentration range would have been effective absent a showing of unexpected results for the claimed auxin application rates and metal concentration ranges.

Response to Applicant's argument

Applicants argue that every embodiment of Clough discloses the use of fungicidal triazole and imidazole compound to apply to plants. Clough does not teach or suggest the use of auxins in the absence of triazoles and imidazoles. The Examiner argues that Clough makes instant claims reciting consisting essentially of language obvious since auxins, like triazoles and imidazoles, possess fungicidal activity. The instant claims do not exclude the triazole and imidazole fungicides taught in Clough since the exclusion of said fungicides would not change the activity the overall fungicidal activity of a composition containing auxin. Thus, Auxins like imidazoles and triazoles show fungicidal activity. Therefore, whether the imidazoles and triazoles are present or absent, the basic fungicidal activity of the instant composition will remain and for this reason the consisting essentially of language would not exclude imidazoles and triazoles. The imidazoles and triazoles would only be excluded if their activity was differ from that of the auxin. Since auxins, imidazoles and triazoles all possess fungicidal activity, the consisting essentially of language recited in the instant claims would not eliminate the fungicidal triazoles and fungicidal imidazoles taught by Clough from the instant claims. The Examiner maintains that it would have been expected that any application rate of auxin and any metal

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concentration range would have been effective absent a showing of unexpected results for the claimed auxin application rates and metal concentration ranges.

Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALTON N. PRYOR whose telephone number is (571)272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Alton N. Pryor/
Primary Examiner, Art Unit 1616

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